Author Index of Volume 241

Ache, H. F., 356
Ache, H. J., 344, 366
Achete, C. A., 255
Adamik, M., 9
Afonso, C. N., 96
Ahmed, N. A. G., 179
Aleksandrov, L. N., 167
Althainz, P., 344, 366
Amato, G., 274
Ambrosone, G., 274
Amouroux, F. J., 295
Amouroux, J., 282
André, B., 171
André, E., 301
Antoni, F., 88
Arefi, F., 295
Arnal, Y., 301
Atamny, F., 352
Aubel, D., 305

Bächli, A., 138
Baehr, O., 278
Baeri, P., 142
Bali, K., 67
Barna, P. B., 9
Barrada, M., 278
Barth, M., 61
Bath, A., 278
Baud, G., 21
Belderrain, T. R., 198
Belkacem, A., 301
Bellard, L., 52
Benayoun, S., 16
Benmalek, M., 21
Berg, S., 1
Bertóti, I., 211
Besse, J. P., 21
Biermann, U, K. P., 134
Bischoff, J. L., 305
Blatter, A., 138
Bodino, F., 21
Bolmont, D., 305
Boulmer-Leborgne, C., 39
Bourée, J.-E., 370
Bourée, J. E., 47
Briones, F., 92
Bulkin, P. V., 247

Caballero, A., 175
Cagigal, M., 92
Campbell, P., 222
Carlsson, P., 1
Caymax, M., 324, 335
Celis, J. P., 222
Charbonnier, M., 264
Chevarier, A., 264
Chevarier, N., 264
Chicot, D., 230
Ciach, R., 151
Colombo, P., 25
Conde, O., 57
Coscia, U., 274
Creighton, J. R., 310
Cros, A., 52
Crovini, G., 274
Cuniot, M., 47

Dahlke, A., 344
Dahmen, K.-H., 352, 378
Dal Maschio, R., 25
Dallaporta, H., 52
Dauchot, J. P., 260
Deffontaines, B., 230
Deffontaines-Fourez, M., 230
Dekempeneer, E. H. A., 269
Della Mea, G., 25
Delplancke, M. P., 171
Demichelis, F., 274
Deshayes, L., 264
Devine, R. A. B., 251
Diani, M., 305
Dieleman, J., 134
Drévillon, B., 234
Dumont, H., 370
Dunlop, H. M., 21
Dupuy, C., 109
Dvurechenskii, A. V., 167
de Castro, A. J., 202
de Hosson, J. Th. M., 12
de Unamuno, S., 88, 155

Ebert, R., 71
Eersels, L., 269
Emig, G., 356, 361
Espinós, J. P., 175, 198

Farber, Y., 282
Faryna, M., 151
Fernández, A., 175, 198
Fernández, D., 80, 348
Fernández, M., 202
Ferro, D., 114
Flamant, G., 109
Fogarassy, E., 88, 103, 155
Franck, M., 222
Freire, Jr., F. L., 255
Freller, H., 71
French, I. D., 287

Gaboriaud, R. J., 16
Gambardella, U., 114
García, E., 80, 348
Geretovszky, Zs., 67
Gerfin, T., 352
Gerri, M., 103
Giardini-Guidoni, A., 114, 126
González, P., 80, 348
González-Elipe, A. R., 175, 198
Gonzalo, J., 96
Gorochov, O., 370
Goschnick, J., 344, 356, 366
Gouy-Pallier, Ph., 374
Gravesteijn, D. J., 206
Greuter, M. J. W., 12
Grimaldi, M. G., 188
Grob, A., 155
Grob, J. J., 155

Hale, J. S., 218
Hälg, W. J., 352
Hambourger, P., 218
Hartmann, J., 84
Hashimoto, M., 9
Hecqu., M., 260
Heinig, K.-H., 167
Hellemans, L., 222
Hermann, J., 39
Hess, P., 61, 318

Ianno, N. J., 218
Illmann, U., 71
Iost, A., 230

Jacobs, R., 269
Jacquet, M., 21
Jiang, Q. D., 100
Johansen, H., 119
Johs, B., 44
Justo, A., 175

Karl, H., 84
Katardjiev, I. V., 1
Kazimierski, P., 291
Keiper, B., 119
Kelly, R., 192, 211, 383
Khairallah, Y., 295
Khonsari-Arefi, F., 282
Klümper-Westkamp, H., 30
Konijnenberg, M. C., 100
Kosuge, A., 9
Kubler, L., 305
Kuhn, W., 370
Kuźma, M., 151
Kwong, D. L., 329

La Mantia, A., 188
Lacquet, B. M., 247
Lagarde, T., 240
Lami, Ph., 374
Lang, F.-R., 378
Laptev, V. A., 76
Laroche, J. M., 47
Legrand, P. B., 260
Leinen, D., 175, 198
León, B., 80, 348
Lepley, B., 278
Libezny, M., 324, 335
Lodders, W. H. M., 287
Lopéz, F., 202
Lorenz, P., 71
Lunney, J. G., 129

Madar, R., 251
Maréchal, N., 34

Marine, W., 52, 103, 129
Mariotto, G., 255
Marletta, G., 211
Marotta, V., 114, 126
Martini, T., 119
Martino, R., 114
Maruyama, H., 9
Matacotta, F. C., 100
Mayr, P., 30
Mazhukin, V., 109
McGahan, W. A., 44
Mele, A., 126
Meléndez, J., 202
Meneve, J., 269
Mertens, R., 324, 335
Mijnarends, P. E., 171
Miotello, A., 192, 383
Mohai, M., 211
Mollekopf, G., 61
Moore, A. W., 218
Morales, R., 374
Morone, A., 114
Müller, D., 155
Müller, G., 100
Mwose, P. K., 25

Nender, C., 1
Niesen, L., 12
Nijs, J., 324, 335

Oberländer, B. C., 222
Oberlin, J. -C., 251, 301
Ohmi, T., 159
Orain, H., 47
Orlando, S., 114
Oversluizen, G., 287

Paramês, M. L. G. F., 57
Pauleau, Y., 34
Pelletier, J., 240, 301
Pérez-Amor, M., 80, 348
Petit, T., 264
Piccirillo, S., 126
Pimenov, S. M., 76
Pirri, C. F., 274
Pizzella, G., 126
Pociask, M., 151
Poortmans, J., 324, 335
Popovska, N., 361
Pou, J., 80, 348
Prévot, B., 88, 155

Qiu, H., 9
Quesnel, E., 34
Qu'Hen, B., 370

Rava, P., 274
Ravesi, S., 188
Reader, A. H., 206
Reiße, G., 71, 119
Repplinger, F., 155
Rigato, V., 25
Romand, M., 264
Rommeluere, J. F., 47
Roos, J., 222
Rossi, F., 171
Rossi, M., 340

Safran, G., 9
Salmon, E., 16
Schoch, G., 356, 361
Scholz, R., 119
Schoonman, J., 278
Schultheiss, C., 100
Schut, H., 171
Schuy, L., 366
Sentis, M., 103, 129
Serra, J., 80, 348
Sessa, V., 340
Shafeev, G., 52
Shafeev, G. A., 76
Sheregii, E., 151
Shibata, T., 159
Sighel, C., 25
Silvestre, A. J., 57
Smeets, J., 269
Smurov, I., 109
Snauwaert, J., 222
Snnikrishnan, U., 329
Sommer, M., 356
Spady, B. L, 218
Spinalla, C., 188
Stafast, H., 61
Stock, D., 167
Stoquert, J. P., 155
Strizker, B., 84
Swart, P. L., 247
Synowicki, R. A., 218
Szörényi, T., 67, 80
Szymanowski, H., 291

Teghil, R., 126
Tejedor, P., 92
Templier, F., 251
Terranova, M. L., 340
Terrasi, A., 188
Thomann, A. L., 39
Tokarev, V., 103, 129
Tonneau, D., 47
Tóth, A., 67, 211
Tresso, E., 274
Tyczkowski, J., 291

Vallier, L., 251
Van Ammel, A., 324, 335
Vanhellemont, J., 335
Vega, F., 96
Verdi, L., 383
Verwerft, M., 12
Vicent, J. L., 92
Vitali, G., 340
van de Riet, E., 134
van der Put, P. J., 278
van Gorkum, A. A., 206
van Veen, A., 12, 171, 206

Weißmantel, S., 119
Woollam, J. A., 44, 218
Wormer, O., 356

Yoon, G. W., 329

Zandolin, S., 25
Zehnder, T., 138
Zinovyev, V. A., 167

Thin Solid Films, *241* (1994) 391–397

Subject Index of Volume 241

Aluminium
  electrical characterization of laser-induced deposits of aluminum on gallium arsenide, 47
  large area selective thin film deposition by bias sputtering, 1
  selective deposition of tungsten by chemical vapour deposition from SiH_4 reduction of WF_6, 374
Aluminium oxide
  alumina coating on polyethylene teraphthalate, 21
Amorphous materials
  amorphous hydrogenated carbon films elaborated by plasma-assisted chemical vapour deposition: characterization of composition by nuclear methods, 264
  amorphous semiconductors: deposition chemistry and bonding, 318
  correlations between process parameters, chemical structure and electronic properties of amorphous hydrogenated Ge_xC_{1-x} films prepared by plasma-enhanced chemical vapour deposition in a three-electrode reactor, 291
  highly pressurized Kr agglomerates in sputtered Si films, 12
  in situ monitoring by soft X-ray spectrometry of amorphous carbon plasma deposition, 260
  in situ spectroscopic ellipsometry studies of interfaces of thin films deposited by PECVD, 234
  plasma enhanced chemical vapour deposition of amorphous silicon nitride for thin film diode active matrix liquid crystal displays, 287
Argon fluoride
  tailoring silicon oxide film properties by tuning the laser beam-to-substrate distance in ArF laser-induced chemical vapour deposition, 80
Atomic force microscopy
  comparative investigation by laser-profilometry, scanning electron microscopy and atomic force microscopy of wear on solar-beam-irradiated partially oxidized TiN coatings, 222

Biomaterials
  microhardness and spectroscopy studies of surface modification of titanium alloys by melted metaphosphates, 230
Boron nitride
  plasma enhanced chamical vapour deposition of boron nitride onto InP, 278

Carbides
  chemical vapour deposition of hafnium carbide and characterization of the deposited layers by secondary-neutral mass spectrometry, 356
Carbon
  amorphous hydrogenated carbon films elaborated by plasma-assisted chemical vapour deposition: characterization of composition by nuclear methods, 264
  in situ monitoring by soft X-ray spectrometry of amorphous carbon plasma deposition, 260
  microstructural evolution of non-hydrogenated amorphous carbon under ion beam assistance, 171
  Raman analysis of the modifications induced by laser processing and hydrogen implantation in carbon films deposited by the ablation technique, 88
  Raman spectroscopy on nitrogen-incorporated amorphous hydrogenated carbon films, 255
Catalysis
  influence of deposits in a metal–organic chemical vapour deposition apparatus on the stability of precursors, 378
Chemical vapour deposition
  amorphous semiconductors: deposition chemistry and bonding, 318
  applications of rapid thermal chemical vapour deposition technology to ULSI material processing and device fabrication, 329
  chemical vapor deposition in high-density low-pressure plasmas: reactor scale-up and performance, 240
  chemical vapour deposition of hafnium carbide and characterization of the deposited layers by secondary-neutral mass spectrometry, 356
  chemical vapour deposition of silicon carbide on mesophase pitch-based carbon fibres, 361
  growth methodologies and characterization of different polycrystalline diamond films on Ta substrates, 340
  growth of iridium films by metal organic chemical vapour deposition, 352
  influence of deposits in a metal–organic chemical vapour deposition apparatus on the stability of precursors, 378
  investigation of the microstructure, chemical composition and lateral growth kinetics of TiN films deposited by laser-induced chemical vapour deposition, 57
  ion beam induced chemical vapour deposition for the preparation of thin film oxides, 198
  laser based chemical vapour deposition of titanium nitride coatings, 71
  low temperature deposition of glass membranes for gas sensors, 344
  low temperature selective growth of epitaxial Si and $Si_{1-x}Ge_x$ layers from SiH_4 and GeH_4 in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor: kinetics and possibilities, 344
  millitorr range PECVD of a-SiO_2 films using TEOS and oxygen, 251
  preparation of low resistivity tungsten thin films deposited by microwave-plasma-enhanced chemical vapor deposition from the tungsten hexafluoride–hydrogen system, 301
  selective deposition of tungsten by chemical vapour deposition from SiH_4 reduction on WF_6, 374
  SF_6 sensitized CO_2-laser chemical vapour deposition of *a*-Ge:H, 61
  tailoring silicon oxide film properties by tuning the laser beam-to-substrate distance in ArF laser-induced chemical vapour deposition, 80
  XAS and XRD structural studies of titanium oxide thin films prepared by ion beam induced CVD, 175
Clusters
  highly pressurized Kr agglomerates in sputtered Si films, 12
Coatings
  chemical vapour deposition of silicon carbide on mesophase pitch-based carbon fibres, 361
  comparative investigation by laser-profilometry, scanning electron microscopy and atomic force microscopy of wear on solar-beam-irradiated partially oxidized TiN coatings, 222
  influence of deposits in a metal–organic chemical vapour deposition apparatus on the stability of precursors, 378

investigation of the microstructure, chemical composition and lateral growth kinetics of TiN films deposited by laser-induced chemical vapour deposition, 57
laser based chemical vapour deposition of titanium nitride coatings, 71
microhardness and spectroscopy studies of surface modification of titanium alloys by melted metaphosphates, 230
silicon oxide thin films grown by Xe_2* excimer lamp chemical vapour deposition: the role of the substrate temperature and the window-substrate distance, 348
TiN layer synthesis by laser-plasma, 39
Conductivity
silicate glass films deposited by reactive r.f. magnetron sputtering: electrical characterization, 25
Copper
advanced scientific semiconductor processing based on high-precision controlled low-energy ion bombardment, 159
laser assisted metallization of polyphenylquinoxaline, 52
Cyclotron resonance studies
chemical vapor deposition in high-density low-pressure plasmas: reactor scale-up and performance, 240
preparation of low resistivity tungsten thin films deposited by microwave-plasma-enhanced chemical vapor deposition from the tungsten hexafluoride–hydrogen system, 301

Degradation
degradation of thin films: comparison between low Earth experiments and laboratory simulations of the space environment, 218
Deposition process
composition of thin films deposited by ion beam sputtering of a compound target: case of Y–Ba–Cu–O, 16
deposition by plasma-assisted laser ablation and maskless patterning of $YBa_2Cu_3O_{7-x}$ superconducting thin films, 92
deposition of $YBa_2Cu_3O_{7-x}$ thin films by channel-spark pulsed electron beam ablation, 100
ion plating: optimum surface performance and material conservation, 179
laser-assisted nickel deposition onto synthetic diamonds, 76
new method for reduction of droplet deposition onto laser deposited thin metal films, 134
plasma processes in methane discharges during r.f. plasma-assisted chemical vapour deposition of a-C:H thin films, 269
real time emission spectroscopy during laser ablation of BiSrCaCuO targets, 96
selective deposition of tungsten by chemical vapour deposition from SiH_4 reduction of WF_6, 374
silicon oxide thin films grown by Xe_2* excimer lamp chemical vapour deposition: the role of the substrate temperature and the window–substrate distance, 348
thin film deposition of conductive tin oxide from tetramethyltin in a low pressure glow discharge diode reactor, 282
time-resolved measurements of plume shielding during ArF laser ablation of silicon, 129
Diamond
amorphous semiconductors: deposition chemistry and bonding, 318
growth methodologies and characterization of different polycrystalline diamond films on Ta substrates, 340
laser-assisted nickel deposition onto synthetic diamonds, 76
Dielectrics
correlations between process parameters, chemical structure and electronic properties of amorphous hydrogenated Ge_xCl_{1-x} films prepared by plasma-enhanced chemical vapour deposition in a three-electrode reactor, 291
Diffusion
ion-beam mixing chemical guidance. Part III: phase formations as a kinetic rather than thermodynamic phenomenon, 192
oxide growth at a Si surface, 383

Electrical properties and measurements
electrical characterization of laser-induced deposits of aluminum on gallium arsenide, 47
silicate glass films deposited by reactive r.f. magnetron sputtering: electrical characterization, 25
Ellipsometry
in situ spectroscopic ellipsometry studies of interfaces of thin films deposited by PECVD, 234
Epitaxy
advanced scientific semiconductor processing based on high-precision controlled low-energy ion bombardment, 159
electron cyclotron resonance plasma ion beam effects on the formation of SiC on Si(100) characterized by *in-situ* photoemission, 305
epitaxial growth, structure and properties of Ni films grown on MgO(100) by d.c. bias sputter deposition, 9
in-plane lattice constant relaxation during laser ablation of YBCO and yttria-stabilized zirconia, 84
low temperature selective growth of epitaxial Si and $Si_{1-x}Ge_x$ lasers from SiH_4 and GeH_4 in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor: kinetics and possibilities, 324
on the relation between low-temperature epitaxial growth conditions and the surface morphology of epitaxial Si and $Si_{1-x}Ge_x$ layers, grown in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor, 335
photoassisted metal organic vapour-phase epitaxy of ZnTe on GaAs, 370
voids in epitaxial silicon films grown under different thermal conditions: void detection by thermal helium desorption, 206
Evaporation
peculiarities of laser melting and evaporation of superconducting ceramics, 109

Fourier transform infrared spectroscopy
silicon oxide thin films grown by Xe_2* excimer lamp chemical vapour deposition: the role of the substrate temperature and the window–substrate distance, 348

Gallium arsenide
electrical characterization of laser-induced deposits of aluminum on gallium arsenide, 47
Germanium
SF_6 sensitized CO_2-laser chemical vapour deposition of *a*-Ge:H, 61
Glass
low temperature deposition of glass membranes for gas sensors, 344
Glow discharge
surface fluorination of polyethylene films by different CF_4 glow discharges: effects of frequency and electrode configuration, 295

thin film deposition of conductive tin oxide from tetramethyltin in a low pressure glow discharge diode reactor, 282
Glow discharge mass spectroscopy
plasma processes in methane discharges during r.f. plasma-assisted chemical vapour deposition of a-C:H thin films, 269
Graphite
Raman analysis of the modifications induced by laser processing and hydrogen implantation in carbon films deposited by the ablation technique, 88
Growth mechanism
dependence of deposition kinetics on precursor concentration and writing speed in pyrolytic laser deposition from solutions, 67
on the relation between low-temperature epitaxial growth conditions and the surface morphology of epitaxial Si and $Si_{1-x}Ge_x$ layers, grown in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor, 335
plasma processes in methane discharges during r.f. plasma-assisted chemical vapour deposition of a-C:H thin films, 269

Hafnium
chemical vapour deposition of hafnium carbide and characterization of the deposited layers by secondary-neutral mass spectrometry, 356
Hardness
microhardness and spectroscopy studies of surface modification of titanium alloys by melted metaphosphates, 230
High energy electron diffraction
growth methodologies and characterization of different polycrystalline diamond films on Ta substrates, 340
in-plane lattice constant relaxation during laser ablation of YBCO and yttria-stabilized zirconia, 84
Hydrides
optimisation of a-$Si_{1-x}C_x$:H films prepared by ultahigh vaccum plasma enhanced chemical vapour deposition for electroluminescent devices, 274
Hydrogenation
amorphous hydrogenated carbon films elaborated by plasma-assisted chemical vapour deposition: characterization of composition by nuclear methods, 264

Impurities
segregation of impurities and defects in $Hg_{0.8}Cd_{0.2}Te$ by laser annealing, 151
Indium
plasma enhanced chemical vapour deposition of boron nitride onto InP, 278
Indium oxide
spectroscopic ellipsometry studies of indium tin oxide and other flat panel display multilayer materials, 44
Infrared spectroscopy
in situ spectroscopic ellipsometry studies of interfaces of thin films deposited by PECVD, 234
Ion bombardment
advanced scientific semiconductor processing based on high-precision controlled low-energy ion bombardment, 159
effect of ion bombardment on Cr–SI–O layers: an X-ray photoelectron spectroscopic study, 211
ion beam induced chemical vapour deposition for the preparation of thin film oxides, 198
ion-beam mixing chemical guidance. Part III: phase formations as a kinetic rather than thermodynamic phenomenon, 192
microstructural evolution of non-hydrogenated amorphous carbon under ion beam assistance, 171
modelling of layer-by-layer sputtering of Si(111) surfaces under irradiation with low-energy ions, 167
morphological and structural studies of β-$FeSi_2$ films grown by ion beam assisted deposition, 188
optical properties of ion-assisted deposited SiO thin films, 202
Ion implantation
preparation of $Si_{1-x}Ge_x$ thin crystalline films by pulsed excimer laser annealing of heavily Ge implanted Si, 155
Raman spectroscopy on nitrogen-incorporated amorphous hydrogenated carbon films, 255
Ion plating
ion plating: optimum surface performance and material conservation, 179
Iridium
growth of iridium films by metal organic chemical vapour deposition, 352
Iron
morphological and structural studies of β-$FeSi_2$ films grown by ion beam assisted deposition, 188
Iron oxide
granular films of iron oxide prepared by aerosol deposition for the detection of organic vapours, 366

Kinetics
surface chemistry and kinetics of tungsten chemical vapour deposition and selectivity loss, 310

Laser ablation
ablation dynamics of silicon based targets in oxygen and nitrogen atmospheres, 103
deposition by plasma-assisted laser ablation and maskless patterning of $YBa_2Cu_3O_{7-x}$ superconducting thin films, 92
in-plane lattice constant relaxation during laser ablation of YBCO and yttria-stabilized zirconia, 84
laser induced ablation and epitaxial growth of SnSe, 126
new method for reduction of droplet deposition onto laser deposited thin metal films, 134
properties of laser pulse deposited oxide films, 119
real time emission spectroscopy during laser ablation of BiSrCaCuO targets, 96
SiC thin films prepared by pulsed excimer laser deposition, 138
structural characterization and properties of superconducting thin films produced by pulsed laser deposition, 114
time-resolved measurements of plume shielding during ArF laser ablation of silicon, 129
Laser irradiation
dependence of deposition kinetics on precursor concentration and writing speed in pyrolytic laser deposition from solutions, 67
electrical characterization of laser-induced deposits of aluminum on gallium arsenide, 47
investigation of the microstructure, chemical composition and lateral growth kinetics of TiN films deposited by laser-induced chemical vapour deposition, 57
laser-assisted nickel deposition onto synthetic diamonds, 76
peculiarities of laser melting and evaporation of superconducting ceramics, 109
preparation of $Si_{1-x}Ge_x$ thin crystalline films by pulsed excimer laser annealing of heavily Ge implanted Si, 155
pulsed laser induced modifications of metal silicide layers, 142

Raman analysis of the modifications induced by laser processing and hydrogen implantation in carbon films deposited by the ablation technique, 88
segregation of impurities and defects in $Hg_{0.8}Cd_{0.2}Te$ by laser annealing, 151
tailoring silicon oxide film properties by tuning the laser beam-to-substrate distance in ArF laser-induced chemical vapour deposition, 80
TiN layer synthesis by laser-plasma, 39
Low Earth orbit
degradation of thin films: comparison between low Earth experiments and laboratory simulations of the space environment, 218
Luminescence
optimisation of a-$Si_{1-x}C_x$:H films prepared by ultrahigh vacuum plasma enhanced chemical vapour deposition for electroluminescent devices, 274

Mass spectrometry
SF_6 sensitized CO_2-laser chemical vapour deposition of *a*-Ge:H, 61
Metallization
laser assisted metallization of polyphenylquinoxaline, 52
Molecular beam epitaxy
laser induced ablation and epitaxial growth of SnSe, 126
Molybdenum oxide
dependence of deposition kinetics on precursor concentration and writing speed in pyrolytic laser deposition from solutions, 67
Multilayers
spectroscopic ellipsometry studies of indium tin oxide and other flat panel display multilayer materials, 44

Nickel
epitaxial growth, structure and properties of Ni films grown on MgO(100) by d.c. bias sputter deposition, 9
laser-assisted nickel deposition onto synthetic diamonds, 76
Noble gases
voids in epitaxial silicon films grown under different thermal conditions: void detection by thermal helium desorption, 206

Optical coatings
electron cyclotron resonance plasma deposition of SiN_x for optical applications, 247
optical properties of ion-assisted deposited SiO thin films, 202
Optical properties
electron cyclotron resonance plasma deposition of SiN_x for optical applications, 247
peculiarities of laser melting and evaporation of superconducting ceramics, 109
plasma enhanced chemical vapour deposition of amorphous silicon nitride for thin film diode active matrix liquid crystal displays, 287
properties of laser pulse deposited oxide films, 119
Optical spectroscopy
real time emission spectroscopy during laser ablation of BiSrCaCuO targets, 96
Organic substances
laser assisted metallization of polyphenylquinoxaline, 52
Organometallic vapour deposition
photoassisted metal organic vapour-phase epitaxy of ZnTe on GaAs, 370
Oxidation
oxide growth at a Si surface, 383
Oxides
effect of ion bombardment on Cr–Si–O layers: an X-ray photoelectron spectroscopic study, 211
properties of laser pulse deposited oxide films, 119
Oxygen
millitorr range PECVD of a-SiO_2 films using TEOS and oxygen, 251

Phase transitions
pulse laser induced modifications of metal silicide layers, 142
Phosphine
plasma enhanced chemical vapour deposition of boron nitride onto InP, 278
Photoassisted deposition
photoassisted metal organic vapour-phase epitaxy of ZnTe and GaAs, 370
Photoelectron spectroscopy
alumina coating on polyethylene teraphthalate, 21
electron cyclotron resonance plasma ion beam effects on the formation of SiC on Si(100) characterized by *in-situ* photoemission, 305
Physical vapour deposition
ion plating: optimum surface performance and material conservation, 179
TiN_x magnetron sputter coating controlled by an *in situ* eddy current sensor, 30
Plasma processing and deposition
advanced scientific semiconductor processing based on high-precision controlled low-energy ion bombardment, 159
amorphous hydrogenated carbon films elaborated by plasma-assisted chemical vapour deposition: characterization of composition by nuclear methods, 264
chemical vapor deposition in high-density low-pressure plasmas: reactor scale-up and performance, 240
correlations between process parameters, chemical structure and electronic properties of amorphous hydrogenated Ge_xC_{1-x} films prepared by plasma-enhanced chemical vapour deposition in a three-electrode reactor, 291
deposition by plasma-assisted laser ablation and maskless patterning of $YBa_2Cu_3O_{7-x}$ superconducting thin films, 92
electron cyclotron resonance plasma deposition of SiN_x for optical applications, 247
electron cyclotron resonance plasma ion beam effects on the formation of SiC on Si(100) characterized by *in-situ* photoemission, 305
epitaxial growth, structure and properties of Ni films grown on MgO(100) by d.c. bias sputter deposition, 9
highly pressurized Kr agglomerates in sputtered Si films, 12
in situ monitoring by soft X-ray spectrometry of amorphous carbon plasma deposition, 260
laser induced ablation and epitaxial growth of SnSe, 126
optimisation of a-$Si_{1-x}C_x$:H films prepared by ultrahigh vacuum plasma enhanced chemical vapour deposition for electroluminescence devices, 274
plasma enhanced chemical vapour deposition of amorphous silicon nitride for thin film diode active matrix liquid crystal displays, 287
plasma enhanced chemical vapour deposition of boron nitride onto InP, 278
plasma processes in methane discharges during r.f. plasma-assisted chemical vapour deposition of a-C:H thin films, 269

preparation of low resistivity tungsten thin films deposited by microwave-plasma-enhanced chemical vapor deposition from the tungsten hexafluoride–hydrogen system, 301
time-resolved measurements of plume shielding during ArF laser ablation of silicon, 129
TiN layer synthesis by laser plasma
Polymers
surface fluorination of polyethylene films by different CF_4 glow discharges: effects of frequency and electrode configuration, 295
Pyrolysis
dependence of deposition kinetics on precursor concentration and writing speed in pyrolytic laser deposition from solutions, 67
influence of deposits in a metal–organic chemical vapour deposition apparatus on the stability of precursors, 378

Raman scattering
preparation of $Si_{1-x}Ge_x$ thin crystalline films by pulsed excimer laser annealing of heavily Ge implanted Si, 155
Raman analysis of the modifications induced by laser processing and hydrogen implantation in carbon films deposited by the ablation technique, 88
Raman spectroscopy on nitrogen-incorporated amorphous hydrogenated carbon films, 255
Rapid thermal processing
applications of rapid thermal chemical vapour deposition technology to ULSI material processing and device fabrication, 329
Reaction kinetics
ion-beam mixing chemical guidance. Part III: phase formations as a kinetic rather than thermodynamic phenomenon, 192
low temperature selective growth of epitaxial Si and $Si_{1-x}Ge_x$ layers from SiH_4 and GeH_4 in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor: kinetics and possiblities, 324
oxide growth at a Si surface, 383
Resistivity
silver thin films deposited by magnetron sputtering, 34
TiN_x magnetron sputter coating controlled by an *in situ* eddy current sensor, 30
Rutherford backscattering spectroscopy
aluminium coating on polyethylene teraphthalate, 21
in-plane lattice constant relaxation during laser ablation of YBCO and yttria-stabilized zirconia, 84
preparation of $Si_{1-x}Ge_x$ thin crystalline films by pulsed excimer laser annealing of heavily Ge implanted Si, 155
surface fluorination of polyethylene films by different CF_4 glow discharges: effects of frequency and electrode configuration, 295

Scanning electron microscopy
structural characterization and properties of superconducting thin films produced by pulsed laser deposition, 114
Secondary ion mass spectrometry
chemical vapour deposition of hafnium carbide and characterization of the deposited layers by secondary-neutral mass spectrometry, 356
granular films of iron oxide prepared by aerosol deposition for the detection of organic vapours, 366
laser induced ablation and epitaxial growth of SnSe, 126
low temperature deposition of glass membranes for gas sensors, 344
surface fluorination of polyethylene films by different CF_4 glow discharges: effects of frequency and electrode configuration, 295
Segregation
segregation of impurities and defects in $Hg_{0.8}Cd_{0.2}Te$ by laser annealing, 151
Semiconductors
amorphous semiconductors: deposition chemistry and bonding, 318
correlations between process parameters, chemical structure and electronic properties of amorphous hydrogenated Ge_xC_{1-x} films prepared by plasma-enhanced chemical vapour deposition in a three-electrode reactor, 291
thin film deposition of conductive tin oxide from tetramethyltin in a low pressure glow discharge diode reactor, 282
Sensors
optical properties of ion-assisted deposited SiO thin films, 202
TiN_x magnetron sputter coating controlled by an *in situ* eddy current sensor, 30
Silicides
effect of ion bombardment on Cr–Si–O layers: an X-ray photoelectron spectroscopic study, 211
ion-beam mixing chemical guidance. Part III: phase formations as a kinetic rather than thermodynamic phenomenon, 192
large area selective thin film deposition by bias sputtering, 1
morphological and structural studies of β-$FeSi_2$ films grown by ion beam assisted deposition, 188
pulsed laser induced modifications of metal silicide layers, 142
Silicon
ablation dynamics of silicon based targets in oxygen and nitrogen atmospheres, 103
highly pressurized Kr agglomerates in sputtered Si films, 12
in situ spectroscopic ellipsometry studies of interfaces of thin films deposited by PECVD, 234
modelling of layer-by-layer sputtering of Si(111) surfaces under irradiation with low-energy ions, 167
on the relation between low-temperature epitaxial growth conditions and the surface morphology of epitaxial Si and $Si_{1-x}Ge_x$ layers, grown in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor, 335
time-resolved measurements of plume shielding during ArF laser ablation of silicon, 129
voids in epitaxial silicon films grown under different thermal conditions: void detection by thermal helium desorption, 206
Silicon carbide
chemical vapour deposition of silicon carbide on mesophase pitch-based carbon fibres, 361
electron cyclotron resonance plasma ion beam effects on the formation of SiC on Si(100) characterized by *in-situ* photoemission, 305
optimisation of a-$Si_{1-x}C_x$:H films prepared by ultrahigh vacuum plasma enhanced chemical vapour deposition for electroluminescent devices, 274
SiC thin films prepared by pulsed excimer laser deposition, 138
Silicon dioxide
millitorr range PECVD of a-SiO_2 films using TEOS and oxygen, 251
Silicon nitride
ablation dynamics of silicon based targets in oxygen and nitrogen atmospheres, 103
plasma enhanced chemical vapour deposition of amorphous silicon nitride for thin film diode active matrix liquid crystal displays, 287
Silicon oxide
ablation dynamics of silicon based targets in oxygen and nitrogen atmospheres, 103

optical properties of ion-assisted deposited SiO thin films, 202
oxide growth at a Si surface, 383
silicon oxide thin films grown by Xe_2* excimer lamp chemical vapour deposition: the role of the substrate temperature and the window-substrate distance, 348
tailoring silicon oxide film properties by tuning the laser beam-to-substrate distance in ArF laser-induced chemical vapour deposition, 80
Silver
silver thin films deposited by magnetron sputtering, 34
Space environment
degradation of thin films: comparison between low Earth orbit experiments and laboratory simulations of the space environment, 218
Spectroscopic ellipsometry
spectroscopic ellipsometry studies of indium tin oxide and other flat panel display multilayer materials, 44
Sputtering
alumina coating on polyethylene teraphthalate, 21
composition of thin films deposited by ion beam sputtering of a compound target: case of Y–Ba–Cu–O, 16
epitaxial growth, structure and properties of Ni films grown on MgO(100) by d.c. bias sputter deposition, 9
large area selective thin film deposition by bias sputtering, 1
modelling of layer-by-layer sputtering of Si(111) surfaces under irradiation with low-energy ions, 167
silicate glass films deposited by reactive r.f. magnetron sputtering: electrical characterization, 25
silver thin films deposited by magnetron sputtering, 34
Stress
SiC thin films prepared by pulsed excimer laser deposition, 138
Structural properties
granular films of iron oxide prepared by aerosol deposition for the detection of organic vapours, 366
microstructural evolution of non-hydrogenated amorphous carbon under ion beam assistance, 171
morphological and structural studies of β-$FeSi_2$ films grown by ion beam assisted deposition, 188
properties of laser pulse deposited oxide films, 119
Raman spectroscopy on nitrogen-incorporated amorphous hydrogenated carbon films, 255
silver thin films deposited by magnetron sputtering, 34
Superconductivity
composition of thin films deposited by ion beam sputtering of a compound target: case of Y–Ba–Cu–O, 16
deposition of plasma-assisted laser ablation and maskless patterning of $YBa_2Cu_3O_{7-x}$ superconducting thin films, 92
Surface composition
composition of thin films deposited by ion beam sputtering of a compound target: case of Y–Ba–Cu–O, 16
Surface conductivity
silicate glass films deposited by reactive r.f. magnetron sputtering: electrical characterization, 25
Surface melting
peculiarities of laser melting and evaporation of superconducting ceramics, 109
Surface morphology
ion plating: optimum surface performance and materiai conservation, 179
low temperature selective growth of epitaxial Si and $Si_{1-x}Ge_x$ layers from SiH_4 and GeH_4 in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor: kinetics and possibilities, 324
on the relation between low-temperature epitaxial growth conditions and the surface morphology of epitaxial Si and $Si_{1-x}Ge_x$ layers, grown in an ultrahigh vacuum, very low pressure chemical vapour deposition reactor, 335
structural characterization and properties of superconducting thin films produced by pulsed laser deposition, 114
Surface structure
surface chemistry and kinetics of tungsten chemical vapour deposition and selectivity loss, 310

Thermal desorption
voids in epitaxial silicon films grown under different thermal conditions: void detection by thermal helium desorption, 206
Tin
spectroscopic ellipsometry studies of indium tin oxide and other flat panel display multilayer materials, 44
Tin oxide
thin film deposition of conductive tin oxide from tetramethyltin in a low pressure glow discharge diode reactor, 282
Titanium
microhardness and spectroscopy studies of surface modification of titanium alloys by melted metaphosphates, 230
Titanium nitride
comparative investigation by laser-profilometry, scanning electron microscopy and atomic force microscopy of wear on solar-beam-irradiated partially oxidized TiN coatings, 222
investigation of the microstructure, chemical composition and lateral growth kinetics of TiN films deposited by laser-induced chemical vapour deposition, 57
laser based chemical vapour deposition of titanium nitride coatings, 71
TiN layer synthesis by laser-plasma, 39
TiN_x magnetron sputter coating controlled by an *in situ* eddy current sensor, 30
Titanium oxide
comparative investigation by laser-profilometry, scanning electron microscopy and atomic force microscopy of wear on solar-beam-irradiated partially oxidized TiN coatings, 222
XAS and XRD structural studies of titanium oxide thin films prepared by ion beam induced CVD, 175
Ttianium oxide
ion beam induced chemical vapour deposition for the preparation of thin film oxides, 198
Tungsten
large area selective thin film deposition by bias sputtering, 1
preparation of low resistivity tungsten thin films deposited by microwave-plasma-enhanced chemical vapor deposition from the tungsten hexafluoride–hydrogen system, 301
selective deposition of tungsten by chemical vapour deposition from SiH_4 reduction of WF_6, 374
surface chemistry and kinetics of tungsten chemical vapour deposition and selectivity loss, 310

X-ray absorption
XAS and XRD structural studies of titanium oxide thin films prepared by ion beam induced CVD, 175
X-ray diffraction
SiC thin films prepared by pulsed excimer laser deposition, 138
structural characterization and properties of superconducting thin films produced by pulsed laser deposition, 114

XAS and XRD structural studies of titanium oxide thin films prepared by ion beam induced CVD, 175
X-ray photoelectron spectroscopy
effect of ion bombardment on Cr–Si–O layers: an X-ray photoelectron spectroscopic study, 211
granular films of iron oxide prepared by aerosol deposition for the detection of organic vapours, 366
laser assisted metallization of polyphenylquinoxaline, 52
low temperature deposition of glass membranes for gas sensors, 344
X-ray spectrometry
in situ monitoring by soft X-ray spectrometry of amorphous carbon plasma deposition, 260
Yttrium
deposition of $YBa_2Cu_3O_{7-x}$ thin films by channel-spark pulsed electron beam ablation, 100
Zinc telluride
photoassisted metal organic vapour-phase epitaxy of ZnTe on GaAs, 370